

**WHAT IS CLAIMED IS:**

1. A printing control apparatus comprising:

plural expansion processing means for expanding printing data of a predetermined format to image data of a format to be output to a printer, by a segment;

calculation means for calculating, before the expansion processing is performed by said expansion processing means, a processing time necessary to expand the printing data to the image data for each segment;

10 and

scheduling processing means for scheduling the expansion processing for each segment by said plural expansion processing means, based on the time calculated by said calculation means.

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2. An apparatus according to Claim 1, further comprising transfer means for transferring the expanded image data to said printer, and

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wherein said scheduling processing means further comprises judgment means for judging for each segment whether or not the expansion processing is to be performed by said expansion processing means before the transfer of the image data is started, based on the time calculated by said calculation means.

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3. An apparatus according to Claim 2, further comprising compression means for compressing the

expanded image data for the segment to which it was  
judged by said judgment means that the expansion  
processing is to be performed by said expansion  
processing means before the transfer of the image data  
is started.

4. An apparatus according to Claim 1, further comprising:

reception means for receiving output data from a  
10 data processing apparatus; and  
conversion means for converting the received data  
into the printing data of the predetermined format.

5. An apparatus according to Claim 1, wherein the printing data of the predetermined format is intermediate data of a format classified for each band.

6. A data processing method for a printing control apparatus comprising:

20 an expansion processing step of expanding, by  
using plural expansion processing means, printing data  
of a predetermined format to image data of a format to  
be output to a printer, by a segment;

25 a calculation step of calculating, before the expansion processing is performed by the expansion processing means, a processing time necessary to expand the printing data to the image data for each segment;

and

a scheduling processing step of scheduling the expansion processing for each segment by the plural expansion processing means, based on the time 5 calculated in said calculation step.

7. A method according to Claim 6, further comprising a transfer step of transferring the expanded image data to the printer, and 10 wherein said scheduling processing step further comprises a judgment step of judging for each segment whether or not the expansion processing is to be performed in said expansion processing step before the transfer of the image data is started, based on the 15 time calculated in said calculation step.

8. A method according to Claim 7, further comprising a compression step of compressing the expanded image data for the segment to which it was 20 judged in said judgment step that the expansion processing is to be performed in said expansion processing step before the transfer of the image data is started.

25 9. A method according to Claim 6, further comprising:  
a reception step of receiving output data from a

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~~data processing apparatus; and~~

a conversion step of converting the received data into the printing data of the predetermined format.

5 10. A method according to Claim 6, wherein the printing data of the predetermined format is intermediate data of a format classified for each band.

10 11. A storage medium which stores a computer-readable program to control a printer, said program being to execute:

15 an expansion processing step of expanding, by using plural expansion processing means, printing data of a predetermined format to image data of a format to be output to a printer, by a segment;

20 a calculation step of calculating, before the expansion processing is performed by the expansion processing means, a processing time necessary to expand the printing data to the image data for each segment;

and

25 a scheduling processing step of scheduling the expansion processing for each segment by the plural expansion processing means, based on the time calculated in said calculation step.

12. A ~~medium~~ according to Claim 11, wherein said medium further stores a program to execute a transfer

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step of transferring the expanded image data to the printer, and

5        said scheduling processing step comprises a judgment step of judging for each segment whether or not the expansion processing is to be performed in said expansion processing step before the transfer of the image data is started, based on the time calculated in said calculation step.

10        13. A medium according to Claim 12, wherein said medium further stores a program to execute a compression step of compressing the expanded image data for the segment to which it was judged that the expansion processing is to be performed in said expansion processing step before the transfer of the image data is started.

15        14. A medium according to Claim 11, wherein said medium further stores a program to execute:  
20        a reception step of receiving output data from a data processing apparatus; and  
              a conversion step of converting the received data into the printing data of the predetermined format.

25        15. A medium according to Claim 11, wherein the printing data of the predetermined format is intermediate data of a format classified for each band.

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